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09/847,883	05/03/2001	David Allen Roberts	05918P2 USA	5807

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/847,883  
Filing Date: May 03, 2001  
Appellant(s): ROBERTS ET AL.

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Geoffrey L. Chase  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
AUG 29 2005  
**GROUP 1700**

This is in response to the appeal brief filed May 16, 2005.

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**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Claimed Subject Matter***

The summary of invention contained in the brief is correct.

**(6) *Grounds of Rejection to be Reviewed on Appeal***

The Appellant's statement of grounds of rejection to be reviewed on appeal is correct.

**(7) *Argument***

Appellant's brief includes arguments as set forth in 37 CFR 41.37(c)(1) and (c)(vii).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

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**(9) Prior Art of Record**

US 6,189,189	MORIN et al.	02-2001
EP 0830890 A1	WILKINSON et al.	03-1998
EP 0389612 B1	WATTS et al.	06-1994

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

Claims 4 – 11, 13 – 15, 17 – 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morin et al. (US 6,189,189) in view of Wilkinson et al. (EP 0830890 A1).

Morin is directed to a method of manufacturing low contaminant wipes (Title) useful as a clean room wipe (column 1, lines 55 – 68).

As to claim 23, Morin teaches a polyester fiber fabric (column 2, lines 55 – 65) which may be presaturated with a desired solvent (column 7, lines 15 – 23). Morin teaches that the solvent can comprise water, organic solvents such as naphtha and aqueous solutions of water miscible organic solvents, in particular solutions of alcohols, such as C<sub>1</sub>-C<sub>8</sub> alcohols and water (column 7, lines 20 – 25). Morin teaches that the wipers may contain a surfactant or other additives selected for their cleaning characteristics (column 7, lines 25 – 30).

As to claims 10 and 13 – 16, Morin teaches that the wiper may be constructed of woven or knitted polyester fibers (column 2, lines 53 – 56). Morin teaches that wipers are also typically made of non-woven polyester fabrics (column 1, lines 8 – 10). It should be noted that, according to Merriam-Webster Online Dictionary, a sponge is “a porous rubber or cellulose product used

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similarly to a sponge". Therefore, Morin's wipers of woven or knitted construction can be considered a "sponge".

As to claim 23, Morin fails to teach that the particular alcohol solution that can be used is an acetylenic diol. Morin fails to teach that the acetylenic diol is dimethyl octynediol as required by claim 8 or that the acetylenic diol is tetramethyl decynediol as required by claim 9. As to claim 11, Morin fails to teach that the acetylenic diol is selected from the group as listed in claim 11.

Wilkinson is directed to surfactants for use in liquid/supercritical CO<sub>2</sub> (Title) useful in applications such as electronic cleaning operations such as silicon wafer cleaning, etc. (page 5, lines 12 – 15). Wilkinson teaches a composition comprising CO<sub>2</sub>/water mixtures with acetylenic diols (page 5, lines 33 – 36) such as 3,6-dimethyl-4-octyn-3,6-diol and 2,4,7,9-tetramethyl-5-decyn-4,7-diol (page 5, lines 5 – 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the acetylenic diols of Wilkinson as the alcohol in Morin motivated by the desire to choose an alcohol suitable for applications such as electronic cleaning operations. It would be noted that both Wilkinson and Morin are concerned with cleaning products suitable for cleanroom type applications.

As to claims 4, 5 and 23, Morin in view of Wilkinson discloses the claimed invention except for that the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 23, is present in the amount of 0.01% to 0.3% by weight as required by claim 4

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and is present in the amount of 0.05% to 0.2% by weight as required by claim 5. It should be noted that the amount of acetylenic diol is a result effective variable. For example, the cleaning ability of the diol is directly related to the amount present. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a wipe where the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 23, is present in the amount of 0.01% to 0.3% by weight as required by claim 4 and is present in the amount of 0.05% to 0.2% by weight as required by claim 5, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amount of acetylenic diol to optimize the cleaning abilities of the wiper.

As to claim 6 and 7, although Morin in view of Wilkinson does not explicitly teach the claimed vapor pressure of at least  $10^{-4}$  torr at 25°C as required by claim 6 and vapor pressure of at least  $10^{-3}$  torr at 25°C as required by claim 7, it is reasonable to presume that vapor pressure of at least  $10^{-4}$  torr at 25°C as required by claim 6 and vapor pressure of at least  $10^{-3}$  torr at 25°C as required by claim 7 is inherent to Morin in view of Wilkinson. Support for said presumption is found in the use of like materials (i.e. a cleaning composition that includes a nonionic surfactant and water), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of vapor pressure of at least  $10^{-4}$  torr at 25°C as required by claim 6 and vapor pressure of at least  $10^{-3}$  torr at 25°C as required by claim 7, it is reasonable to presume that vapor pressure of at least  $10^{-4}$  torr at 25°C as required by claim 6 and vapor pressure of at least  $10^{-3}$  torr at 25°C as required

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by claim 7 would obviously have been present Morin in view of Wilkinson product is provided.

Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claims 17 – 19, Morin in view of Wilkinson teaches that the water is present in the solvent. Although this does not necessary mean high purity, distilled or deionized water, it would have been obvious to one of ordinary skill to use high purity, distilled or deionized water because that would lower impurities and residue left behind by the cleaning solution.

Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morin et al. (US 6,189,189) in view of Wilkinson et al. (EP 0830890 A1) and Watts et al. (EP 0389612 B1).

As to claim 20, Morin is directed to a method of manufacturing low contaminant wipes (Title) useful as a cleanroom wipe (column 1, lines 55 – 68). Morin teaches a polyester fiber fabric (column 2, lines 55 – 65) which may be presaturated with a desired solvent (column 7, lines 15 – 23). Morin teaches that the solvent can comprise water, organic solvents such as naphtha and aqueous solutions of water miscible organic solvents, in particular solutions of alcohols, such as C<sub>1</sub>-C<sub>8</sub> alcohols and water (column 7, lines 20 – 25). Morin teaches that the wipers may contain a surfactant or other additives selected for their cleaning characteristics (column 7, lines 25 – 30). Morin teaches that the wiper may be constructed of woven or knitted polyester fibers (column 2, lines 53 – 56). Morin teaches that wipers are also typically made of non-woven polyester fabrics (column 1, lines 8 – 10).

Morin fails to teach that the particular alcohol solution that can be used is an acetylenic diol such as tetramethyl decynediol or acetylenic diol.

Wilkinson is directed to surfactants for use in liquid/supercritical CO<sub>2</sub> (Title) useful in applications such as electronic cleaning operations such as silicon wafer cleaning, etc. (page 5, lines 12 – 15). Wilkinson teaches a composition comprising CO<sub>2</sub>/water mixtures with acetylenic diols (page 5, lines 33 – 36) such as 3,6-dimethyl-4-octyn-3,6-diol and 2,4,7,9-tetramethyl-5-decyn-4,7-diol (page 5, lines 5 – 11).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the acetylenic diols of Wilkinson as the alcohol in Morin motivated by the desire to choose an alcohol suitable for applications such as electronic cleaning operations. It would be noted that both Wilkinson and Morin are concerned with cleaning products suitable for cleanroom type applications.

Morin in view of Wilkinson teach that the woven fabric wipe can be made of polyester but fail to disclose that the wipe can also contain cellulose.

Watts is directed to a hydraulically entangled wet laid base sheet for wipers (Title) for use in applications such as micro-electronic clean rooms (page 2, lines 14 – 20). Watts teaches that cloth made solely from polyester may not be very absorptive while cloths made solely from natural fibers such as cotton have natural oils which may be undesirably deposited onto a wiped surface (page 2, lines 53 – 56). Watts teaches in Example 1 the use of a fabric comprising 50% hardwood pulp and 50% uncrimped polyester staple fiber (page 6, lines 15 – 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to create the wipe of Morin in view of Wilkinson with polyester and cotton as suggested by Watts motivated by the desire to optimize the wipe strength and absorbency.

As to claims 20 and 22, Morin in view of Wilkinson and Watts discloses the claimed invention except for that the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 20 and is present in the amount of 0.05% to 0.2% by weight as required by claim 22. It should be noted that the amount of acetylenic diol is a result effective variable. For example, the cleaning ability of the diol is directly related to the amount present. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a wipe where the acetylenic diol is present in the amount of 0.001% to 0.5% by weight as required by claim 20 and is present in the amount of 0.05% to 0.2% by weight as required by claim 22, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amount of acetylenic diol to optimize the cleaning abilities of the wiper.

As to claim 20, although Morin in view of Wilkinson and Watts does not explicitly teach the claimed vapor pressure of at least  $10^{-4}$  torr at 25°C, it is reasonable to presume that vapor pressure of at least  $10^{-4}$  torr at 25°C is inherent to Morin in view of Wilkinson. Support for said presumption is found in the use of like materials (i.e. a cleaning composition that includes a nonionic surfactant and water), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed property of vapor pressure of at least  $10^{-4}$  torr at 25°C, it is reasonable to presume that vapor pressure of at least  $10^{-4}$  torr at 25°C would obviously have been present Morin in view of Wilkinson product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

As to claim 20, Morin in view of Wilkinson and Watts teaches that the water is present in the solvent. Although this does not necessary mean high purity, distilled or deionized water, it would have been obvious to one of ordinary skill to use high purity, distilled or deionized water because that would lower impurities and residue left behind by the cleaning solution.

**(11) Response to Argument**

Applicant argues that Morin is directed predominantly to a method of manufacturing polyester fabrics as a substrate for wipers suited for use in electronic cleanrooms, such that the wiper releases fewer particulate contaminants and extractable components of the substrate material itself. Applicant argues that Morin clearly indicate their effort for reducing contamination by wiping surfaces is directly solely to the polyester material employed in the wiper, not the impregnating solution as discussed by the Applicant. The Examiner submits that Morin does positively teach the use of a polyester fiber fabric (column 2, lines 55 – 65) which may be presaturated with a desired solvent (column 7, lines 15 – 23). Morin teaches that the solvent can comprise water, organic solvents such as naphtha and aqueous solutions of water miscible organic solvents, in particular solutions of alcohols, such as C<sub>1</sub>-C<sub>8</sub> alcohols and water (column 7, lines 20 – 25). Morin teaches that the wipers may contain a surfactant or other additives selected for their cleaning characteristics (column 7, lines 25 – 30). Although Morin may be concerned with contaminants released by the actual substrate material itself, it should be noted that the use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain. See *In re Heck*, 699 F.2d 1331, 1332-33, 216 USPQ

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1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006, 1009, 158 USPQ 275, 277 (CCPA 1968)).

Applicant argues that Morin teaches with no specificity as to the type or solvent impregnated into the wiper nor do Morin suggest levels of wetting agents that approach what Applicant's claim as a component of their wipe. Morin discloses wipers which may be used for cleaning surfaces in electronic clean rooms. Although Morin does suggest that isopropanol is a suitable alcohol, Morin also provides a generic disclosure to the types of alcohols that may be impregnated into the wiper substrate. Morin lists patents to provide further disclosure of additional solvents which may be used in the wipes *only by way of example*. Morin does not intend to be limiting in the type of alcohol as the solution utilized in the wipe. Therefore, one skilled in the art would believe that any alcohol such as the alcohol taught by Wilkinson which has been proven to be an effective surfactant in clean room applications would be an acceptable alcohol in invention of Morin. As discussed above, Morin is considered relevant for all that the patent contains and is not limited by the problems to which Morin is concerned.

Applicant argues that Wilkinson and Morin are non-analogous art. Wilkinson discloses the use of a variety of acetylenic diols solutions for use in electronic cleaning operations. The Examiner acknowledges that the acetylenic diols of Wilkinson are used in supercritical cleaning operations. However, the Examiner submits that the environment in which the cleaning takes place is irrelevant since Wilkinson does demonstrate that surfactants such as acetylenic diols are useful in clean room type applications. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the acetylenic diols of Wilkinson as the alcohol in Morin motivated by the desire to choose an alcohol suitable for applications such as

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electronic cleaning operations. It should be noted that the preamble of the independent claims do not limit the cleaning wipe for sole use in ambient conditions or for sole use in super critical conditions. The preamble only requires that the wipe is suitable for use in generic clean room applications, which encompasses the subject matter of both Wilkinson and Morin.

Applicant argues that the language “consisting essentially of” would exclude the kinds of solvents suggested by Morin, which at effective levels would contribute to a high VOC level, e.g., 1 – 99% isopropanol. The Examiner does not suggest the use of 1 – 99% isopropanol or even the use of solvents of Morin. The Examiner has suggested in the rejection that it would be obvious to optimize the amount of the particular alcohol taught by Wilkinson in the wipe of Morin. If the claimed ranges have unexpected results, the burden is upon the Applicant to demonstrate that the claimed ranges are not a matter of simple optimization. The Examiner highly suggests to the Applicant to submit a 37 CFR 1.132 Declaration to establish unexpected results. In the Declaration, the Applicant should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. In *re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960) and must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. The Examiner has provided the Appellant an opportunity to provide evidence but the Appellant has failed to do so. Furthermore, it should be noted that the transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps “and those that do not materially affect the basic and novel characteristic(s)” of the claimed invention. In *re Herz*, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). The burden is upon the Applicant to show that the additional components do affect the basic and novel characteristics of the invention. For the purposes of

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searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See MPEP 2111.03. The Applicant has not provided evidence to show how the presence of the levels of alcohol taught by Morin in view of Wilkinson would destroy the basic and novel characteristics.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


  
Jennifer Boyd

August 12, 2005

Conferees

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